

EXHIBIT A

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DEC 14 1989

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MW	_____	FILE	_____

TO: JAMES E. EAKIN
HARRISON & EAKIN
1700 SOUTH EL CAMINO REAL, STE 405
SAN MATEO, CA 94402-3083

UNITED STATES PATENT AND TRADEMARK OFFICE
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ASSIGNOR: 001 BONEAU, MICHAEL D.

DOC DATE: 08/24/89

RECORDATION DATE: 08/24/89 NUMBER OF PAGES 002 REEL/FRAME 5116/0570

DIGEST: ASSIGNMENT OF ASSIGNORS INTEREST

ASSIGNEE: 501 ACCUTERIX, INC., 342 W. SUNNYOAKS, CAMPBELL, CALIFORNIA 95008, A CORP. OF CA

SERIAL NUMBER 7-398180 FILING DATE 08/24/89
PATENT NUMBER ISSUE DATE 00/00/00

TITLE OF INVENTION: ENDOVASCULAR SUPPORT DEVICE AND METHOD

INVENTOR: 001 BONEAU, MICHAEL D.

SEND STD LTR
TO BONEAU, COPY
TO STRAUSSER BUT
WE KEEP ORIG.
JEE

ASSIGNMENT

1
2 WHEREAS, I, MICHAEL D. BONEAU, a citizen of the United States of America,
3 residing at 342 W. Sunnyoaks, Campbell, California 95008, have invented a certain
4 new and useful ENDOVASCULAR SUPPORT DEVICE AND METHOD for which I am
5 about to make an application for Letters Patent of even date herewith; and

6 WHEREAS, ACCUTERIX, INC., a corporation existing under the laws of the
7 State of California and doing business at 342 W. Sunnyoaks, Campbell, California
8 95008, is desirous of obtaining the entire right, title and interest in, to and under the
9 said invention and application.

10 NOW, THEREFORE, for good and valuable consideration, the receipt of which
11 is hereby acknowledged, I, MICHAEL D. BONEAU, have sold, assigned, transferred
12 and set over, and by these presents do hereby sell, assign, transfer and set over
13 unto the said ACCUTERIX, INC, its successors, legal representatives and assigns,
14 my entire right, title and interest in, to and under the said invention and the said
15 application for Letters Patent, a copy of which as filed in the United States Patent
16 Office is contained in Docket No. H-1136-P in the offices of HARRISON & EAKIN, a
17 Partnership of Professional Corporations, 1700 South El Camino Real, Suite 405, San
18 Mateo, California 94402-3083 and all divisions, continuations and continuations-in-
19 part thereof, and all Letters Patent of the United States which may be granted
20 thereon and all applications for Letters Patent which may be filed for said invention
21 in any country or countries foreign to the United States, and all Letters Patent which
22 may be granted for said invention in any country or countries foreign to the United
23 States, and to all extensions, renewals, and reissues thereof, and the right to claim
24 priority under the International Convention for the Protection of Industrial Property;
25 and I hereby authorize and request the Commissioner of Patents and Trademarks
26 of the United States, and any Official of any country or countries foreign to the
27 United States whose duty it is to issue patents on applications as aforesaid, to issue
28 all Letters Patent for said invention to the said ACCUTERIX, INC., its successors,
29 legal representatives and assigns, in accordance with this instrument.

30 AND I hereby covenant that I have the full right to convey my entire interest
31 herein assigned, and that I have not executed, and will not execute, any agreement
32 in conflict herewith.

1 AND I hereby further covenant and agree that I will communicate to the said
 2 ACCUTERIX, INC., its successors, legal representatives and assigns, any facts known
 3 by me respecting said invention, and testify in any legal proceeding, sign all lawful
 4 papers, execute all divisional, continuing or reissue applications, make all rightful
 5 oaths, and generally do everything possible to aid the said ACCUTERIX, INC., its
 6 successors, legal representatives and assigns to obtain and enforce proper patent
 7 protection for said invention in all countries.

8 IN TESTIMONY WHEREOF, I have hereunto set my hand this Twenty-Fourth
 9 day of August, 1989, at Santa Clara, California.

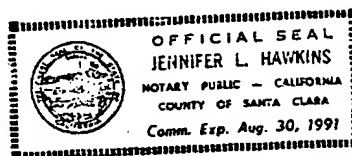
10
 11 
 12 Michael D. Boneau

13 STATE OF CALIFORNIA

14 COUNTY OF Santa Clara }

ss.

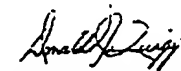
15 On this Twenty-Fourth day of August, 1989, before me personally appeared
 16 Michael D. Boneau, personally known to me or proved to me on the basis of
 17 satisfactory evidence to be the person whose name is subscribed to the within
 18 instrument, and acknowledged that he executed it. Witness my hand and official
 19 seal.



24 
 25 Notary Public

26 RECORDED
 27 PATENT & TRADEMARK OFFICE

28 AUG 24 89

29 
 30 COMMISSIONER OF PATENTS
 31 AND TRADEMARKS OFFICE
 32



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

DATE: 09/18/91
TO:
JAMES E. EAKIN
HARRISON & EAKIN
1700 SOUTH EL CAMINO REAL, STE 405
SAN MATEO, CA 94402-3083

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT ASSIGNMENT PROCESSING SYSTEM. IF YOU SHOULD FIND ANY ERRORS, ON THIS NOTICE, PLEASE SEND A REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT BRANCH, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231

ASSIGNOR:
ACCUTERIX, INC., A CORPORATION OF CA

DOC DATE: 08/09/91

RECORDATION DATE: 08/23/91 NUMBER OF PAGES 003 REEL/FRAME 5816/0215

DIGEST :ASSIGNMENT OF ASSIGNORS INTEREST

ASSIGNEE:
ENDOVASCULAR SUPPORT SYSTEMS, INC.
A CORPORATION OF CA
342 W. SUNNYOAKS
CAMPBELL, CALIFORNIA 95008

SERIAL NUMBER	7-398180	FILING DATE	08/24/89
PATENT PATENT		ISSUE DATE	00/00/00

RECEIVED
Law Office Of
JAMES E. EAKIN, PC.

OCT 15 1991

EE _____ JC _____
DOCKET _____

H-1136-P

1 it is to issue patents on applications as aforesaid, to issue all Letters Patent for said
2 invention the said ENDOVASCULAR SUPPORT SYSTEMS, INC., its successors, legal
3 representatives and assigns, in accordance with this instrument;

4 AND, ACCUTERIX, INC., hereby covenant that it have the full right to convey
5 my entire interest herein assigned, and that I have not executed, and will not execute,
6 any agreement in conflict therewith;

7 AND, ACCUTERIX, INC., hereby further covenant and agree that it will
8 communicate to the said ENDOVASCULAR SUPPORT SYSTEMS, INC., its successors,
9 legal representatives and assigns, any facts known to it respecting said invention and
10 said application, and testify in any legal proceedings, execute all lawful papers, make
11 all rightful oaths and generally do everything possible to aid the said ENDOVASCULAR
12 SUPPORT SYSTEMS, INC., its successors, legal representatives and assigns to obtain
13 and enforce proper patent protection for said invention in all countries.

14 IN TESTIMONY WHEREOF, ACCUTERIX, INC., through an authorized officer,
15 has caused this Assignment to executed this 9 day of AUG. 1991.

16
17 RECEIVED
PATENT AND TRADE MARK
OFFICE

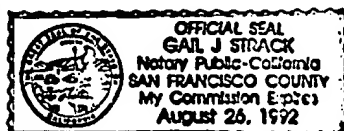
18 Ben Hidalgo
Ben Hidalgo,
Secretary & Treasurer
ACCUTERIX, INC.

19
20 State of California)
21 County of San Mateo)

22 On 9th day of August, 1991 before me, Gail J Strack personally
23 appeared Ben Hidalgo, personally known to me (or proved to me on the basis of
24 satisfactory evidence) to be the person whose name is subscribed to the within
instrument and acknowledged to me that he executed the same in his authorized
25 capacity, and that by his signature on the instrument the person, or the entity upon
behalf of which the person acted, executed the instrument.

26 WITNESS my hand and official seal.

27 Signature Gail J Strack Seal



ASSIGNMENT

WHEREAS, ACCUTERIX, INC., a corporation existing under the law of the State of California and doing business at 342 W. Sunnyoaks, Campbell, California 95008, is the owner by assignment of U.S. Patent Application Serial Number 07/398,180, filed August 24, 1989, entitled ENDOVASCULAR SUPPORT DEVICE AND METHOD together with all right, title and interest in, to and under the invention described therein including all foreign rights thereto; and

WHEREAS, ENDOVASCULAR SUPPORT SYSTEMS, INC., a corporation existing under the laws of the State of California and doing business at 342 W. Sunnyoaks, Campbell, California 95008, is desirous of obtaining the entire right, title and interest in, to and under the said application, including all foreign rights;

NOW, THEREFORE, in consideration of a good and valuable consideration, the receipt of which is hereby acknowledged, ACCUTERIX, INC., have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over unto the said ENDOVASCULAR SUPPORT SYSTEMS, INC., its successors, legal representatives and assigns my entire right, title and interest in, to and under the said invention and the said application of Letters Patent Serial No. 07/398,180 filed August 24, 1989, and all divisions, continuations and continuations-in-part thereof, and all Letters Patent of the United States which may be granted thereon and all application for Letters Patent which may be granted for said invention in any country or countries foreign to the United States of America, and to all extensions, renewal, reissues, and reexamination certificates thereof, and the right to claim priority under the International Convention of the Protection of Industrial Property, and all rights under the Patent Cooperation Treaty; and ACCUTERIX, INC., hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America, and any official of any country or countries foreign to the United States whose duty

91600019160000

ASSIGNMENT

WHEREAS, ENDOVASCULAR SUPPORT SYSTEMS, INC., formerly named ENDOTHELIAL SUPPORT SYSTEMS, INC., a corporation existing under the laws of the State of California and doing business at 342 W. Sunnyoaks, Campbell, California 95008, is the owner by assignment of U.S. Patent Application Serial Number 07/398,180, filed August 24, 1989, entitled ENDOVASCULAR SUPPORT DEVICE AND METHOD, together with all right, title and interest in, to and under the invention described therein including all foreign rights thereto; and

WHEREAS, APPLIED VASCULAR ENGINEERING, INC., a corporation existing under the laws of the State of Delaware and doing business at 5345 Skylane Boulevard, Santa Rosa, CA 95403 is desirous of obtaining the entire right, title and interest in, to and under the said invention and application, including all foreign rights;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ENDOVASCULAR SUPPORT SYSTEMS, INC., have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over unto the said APPLIED VASCULAR ENGINEERING, INC., its successors, legal representatives and assigns, its entire right, title and interest in, to and under the said invention and the said application for Letters Patent serial number 07/398,180, filed August 24, 1989, and all divisions, continuations and continuations-in-part thereof, and all Letters Patent of the United States which may be granted thereon and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States, and all Letters Patent which may be granted for said invention in any country or countries foreign to the United States, and to all extensions, renewals, and reissues thereof, and the right to claim priority


H-1136-P

under the International Convention for the Protection of Industrial Property; and ENDOVASCULAR SUPPORT SYSTEMS, INC., hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said APPLIED VASCULAR ENGINEERING, INC., its successors, legal representatives and assigns, in accordance with this instrument.

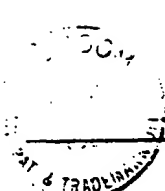
AND ENDOVASCULAR SUPPORT SYSTEMS, INC., hereby covenants that it has the full right to convey its entire interest herein assigned, and that it has not executed, and will not execute, any agreement in conflict herewith.

AND ENDOVASCULAR SUPPORT SYSTEMS, INC., hereby further covenants and agrees that it will communicate to the said APPLIED VASCULAR ENGINEERING, INC., its successors, legal representatives and assigns, any facts known by it respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing or reissue applications, make all rightful oaths, and generally do everything possible to aid the said APPLIED VASCULAR ENGINEERING, INC., its successors, legal representatives and assigns to obtain and enforce proper patent protection for said invention in all countries.

IN TESTIMONY WHEREOF, ENDOVASCULAR SUPPORT SYSTEMS, INC., through an authorized officer, has caused this Assignment to be executed this Eighth day of September, 1993, at Santa Rosa, California.



Brady A. Jendersee, President
ENDO VASCULAR SUPPORT SYSTEMS, INC.



100-081

D

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Hon. Commissioner of Patents & Trademarks: Please record the attached original documents.

1. Name of conveying party(ies):

ENDOVASCULAR SUPPORT SYSTEMS, INC.

2. Name and address of receiving party(ies):

Name: APPLIED VASCULAR ENGINEERING, INC.

Street Address: 5345 SKYLANE BLVD.

City: SANTA ROSA State: CA Zip: 95403

Additional name(s) of conveying party(ies)

Attached? Yes X No

3. Nature of Conveyance:

XX Assignment

 Merger

 Security Agreement

 Change of Name

 Other

Execution Date: _____

Additional name(s) & addresses attached?

 Yes XX No

4. Application Number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s)
07/398,180

B. Patent No.(s)

Additional numbers attached? Yes XX No

5. Name and address of party to whom correspondence concerning document should be mailed

Name: LAW OFFICES OF JAMES E. EAKIN

Street Address: 1301 SHOREWAY RD., STE. 324

City: BELMONT State: CA Zip: 94002-4106

6. Total number of applications and patents involved 1

7. Total fee(37CFR3.41)\$ 40.00

XX Enclosed

 Authorized to be charged to deposit account.

8. Deposit Account Number 05-0150
(Attach duplicate copy of this page if paying by Deposit Account)

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. 91695613

JAMES E. EAKIN

Name of Person Signing

Signature

8 SEP 93

Date

Total number of pages comprising cover sheet: 1

Mail documents to be recorded with required cover sheet information to:

Hon. Commissioner of Patents and Trademarks
Box: Assignments
Washington, D.C. 20231



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
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Washington, D.C. 20231

JULY 01, 1997

PTAS

ARTERIAL VASCULAR ENGINEERING
RICHARD L. KLEIN
3576 UNOCAL PLACE
SANTA ROSA, CA 95403



100425106A

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NAME APPEARS ON THIS NOTICE
CORRECTION TO: U.S. PATENT
BOX ASSIGNMENTS, NORTH T

*Name
Change
from
Applied
to Arterial*

IS NOTICE. THE INFORMATION
THE DATA PRESENT IN THE
YOU SHOULD FIND ANY ERRORS OR
CONTACT THE EMPLOYEE WHOSE
PLEASE SEND REQUEST FOR
CE, ASSIGNMENT DIVISION,
0C35, WASHINGTON, D.C. 20231.

RECORDATION DATE: 05/19/97

REEL/FRAME: 8522/0049
NUMBER OF PAGES: 6

BRIEF: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

APPLIED VASCULAR ENGINEERING, INC. DOC DATE: 01/29/1996

ASSIGNEE:

ARTERIAL VASCULAR ENGINEERING, INC.
3576 UNOCAL PLACE
SANTA ROSA, CALIFORNIA 95403

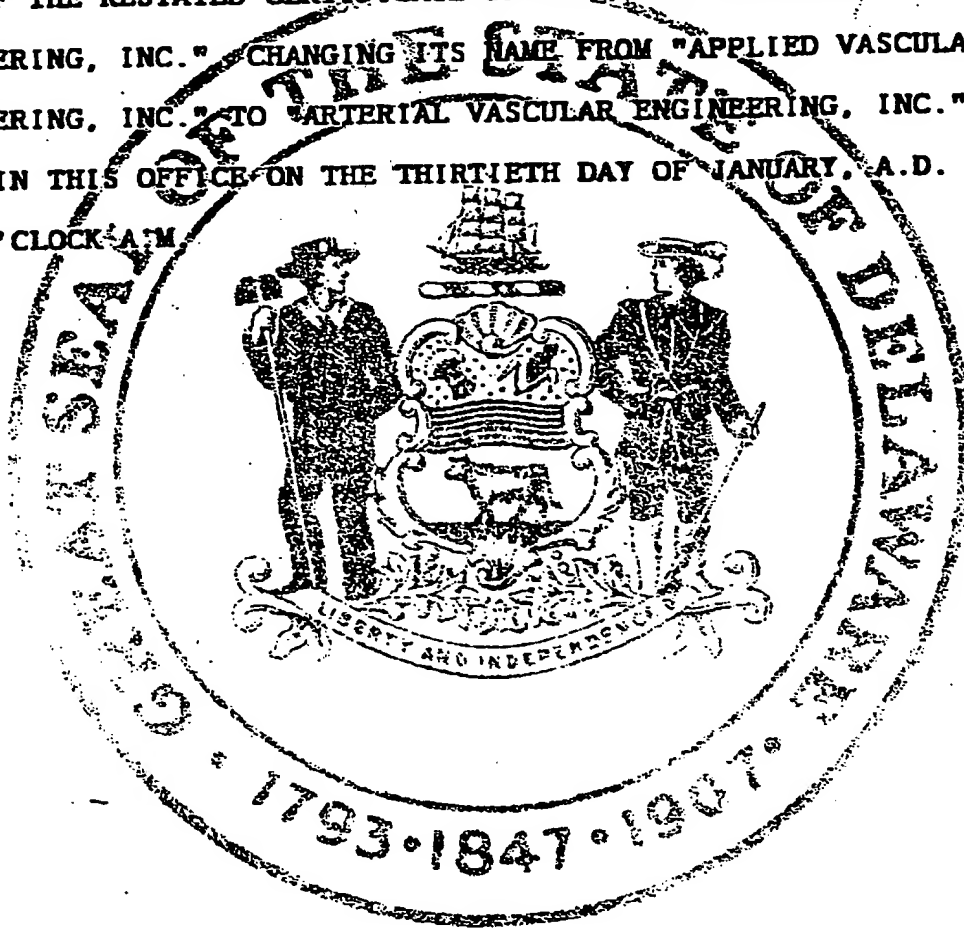
SERIAL NUMBER: 08619014
PATENT NUMBER:

FILING DATE: 03/20/1996
ISSUE DATE:

MAYA BENNETT, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "APPLIED VASCULAR ENGINEERING, INC." CHANGING ITS NAME FROM "APPLIED VASCULAR ENGINEERING, INC." TO "ARTERIAL VASCULAR ENGINEERING, INC.", FILED IN THIS OFFICE ON THE THIRTIETH DAY OF JANUARY, A.D. 1996, AT 9 O'CLOCK A.M.



Edward J. Freel, Secretary of State

2269660 8100

960762289

AUTHENTICATION: 7851810

DATE: 03-04-96

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

I.

The name of this corporation is Arterial Vascular Engineering, Inc.

II.

The address of the registered office of the corporation in the State of Delaware is 1013 Centre Road, City of Wilmington, County of New Castle, and the name of the registered agent of the corporation in the State of Delaware at such address is The Prentice-Hall Corporation System, Inc.

III.

The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware.

IV.

A. This corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares which the corporation is authorized to issue is Fifty Million Five Hundred Thousand (50,500,000) shares. Fifty Million (50,000,000) shares shall be Common Stock, each having a par value of one-tenth of one cent (\$.001). Five Hundred Thousand (500,000) shares shall be Preferred Stock, each having a par value of one-tenth of one cent (\$.001). Each outstanding share of Common Stock, par value \$.01, shall, upon filing of this Amended and Restated Certificate of Incorporation be reconstituted as 5.5 shares of Common Stock, par value \$.001. No fractional shares will be issued and, in lieu thereof, any holder of less than one share of Common Stock shall be entitled to receive cash for such holder's fractional share based on the fair market value of such stock as determined by the Company's Board of Directors.

B. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors is hereby authorized, by filing a certificate (a "Preferred Stock Designation") pursuant to the Delaware General Corporation Law, to fix or alter from time to time the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations or restrictions of any wholly unissued series of Preferred Stock, and to establish from time to time the number of shares constituting any such series or any of them; and to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

V.

For the management of the business and for the conduct of the affairs of the corporation, and in further definition, limitation and regulation of the powers of the corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A.

(1) The management of the business and the conduct of the affairs of the corporation shall be vested in its Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed exclusively by one or more resolutions adopted by the Board of Directors.

(2) Notwithstanding the foregoing provisions of this Article, each director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, directors shall be elected at each annual meeting of stockholders. Each director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(3) Following the closing of the initial public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of the corporation's Common Stock to the public (the "Initial Public Offering"), and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders and except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

B.

(1) Subject to paragraph (h) of Section 43 of the Bylaws, the Bylaws may be altered or amended or new Bylaws adopted by the affirmative vote of at least eighty percent (80%) of the voting power of all of the then-outstanding shares of the Voting Stock. The Board of Directors shall also have the power to adopt, amend, or repeal Bylaws.

(2) The directors of the corporation need not be elected by written ballot unless the Bylaws so provide.

(3) Following the Initial Public Offering, no action shall be taken by the stockholders of the corporation except at an annual or special meeting of stockholders called in accordance with the Bylaws.

(4) Special meetings of the stockholders of the corporation may be called, for any purpose or purposes, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, or (iii) the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption), and shall be held at such place, on such date, and at such time as the Board of Directors shall fix.

(5) Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the corporation shall be given in the manner provided in the Bylaws of the corporation.

VI.

A. A director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit. If the Delaware General Corporation Law is amended after approval by the stockholders of this Article to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director shall be eliminated or limited to the fullest extent permitted by the Delaware General corporation Law, as so amended.

B. Any repeal or modification of this Article VI shall be prospective and shall not affect the rights under this Article VI in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

VII.

A. The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, except as provided in paragraph B. of this Article VII, and all rights conferred upon the stockholders herein are granted subject to this reservation.

**AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF APPLIED VASCULAR ENGINEERING, INC.**

APPLIED VASCULAR ENGINEERING, INC., a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify as follows:

FIRST: The name of the corporation is **APPLIED VASCULAR ENGINEERING, INC.**

SECOND: The Certificate of Incorporation of the corporation was filed by the Secretary of State on July 30, 1991, under the name of Applied Vascular Engineering, Inc.

THIRD: The Amended and Restated Certificate of Incorporation of the corporation, in the form attached hereto as Exhibit A, has been duly adopted in accordance with the provisions of Sections 242 and 245 of the General Corporation Law of the State of Delaware by the Board of Directors of the corporation.

FOURTH: The Amended and Restated Certificate of Incorporation of the corporation, in the form attached hereto as Exhibit A, was approved by the written consent of a majority of the outstanding capital stock of the corporation in accordance with the provisions of Sections 242 and 245 of the General Corporation Law of the State of Delaware. Written consent has been provided, and written notice has been given, in accordance with Section 228 of the General Corporation Law of the State of Delaware. The corporation has one class of stock outstanding. The total number of outstanding shares of Common Stock of the corporation is four million eight hundred sixteen thousand nine hundred fifty-eight (4,816,958).

FIFTH: The Amended and Restated Certificate of Incorporation so adopted reads in full as set forth in Exhibit A attached hereto and hereby incorporated by reference.

IN WITNESS WHEREOF, **APPLIED VASCULAR ENGINEERING, INC.** has caused this Restated Certificate of Incorporation to be signed by its President and attested to by its Secretary this 29 day of January 1996.

APPLIED VASCULAR ENGINEERING, INC.

By: _____

BAJ
Bradly A. Jendersee
Chief Executive Officer and President

ATTEST:

John D. Miller
John D. Miller
Secretary

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 09:00 AM 01/30/1996
960028170 - 2269660



UNITED STATES DEPARTMENT OF COMMERCE
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Washington, D.C. 20231

JUNE 20, 1996

FISH & NEAVE
NICOLA A. PISANO
1251 AVENUE OF THE AMERICAS
NEW YORK, NEW YORK 10020

PTAS

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JUL 01 1996



100166193A

FISH & NEAVE = PATENT DEPT.
REFERRED TO N/A
BY [Signature]

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231.

RECORDATION DATE: 03/25/1996

REEL/FRAME: 7863/0672
NUMBER OF PAGES: 6

BRIEF: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

APPLIED VASCULAR ENGINEERING, INC. DOC DATE: 01/29/1996

ASSIGNEE:

ARTERIAL VASCULAR ENGINEERING, INC.
3624 WESTWIND BOULEVARD
SANTA ROSA, CALIFORNIA 95403

SERIAL NUMBER: 08172420
PATENT NUMBER:

FILING DATE: 12/22/1993
ISSUE DATE:

SERIAL NUMBER: 08471738
PATENT NUMBER: 5,891,190

FILING DATE: 06/06/1995
ISSUE DATE: 4/6/99

SERIAL NUMBER: 08465842
PATENT NUMBER: 5,800,509

FILING DATE: 06/06/1995
ISSUE DATE: 9/1/98

SERIAL NUMBER: 08326023
PATENT NUMBER:

FILING DATE: 10/19/1994
ISSUE DATE:

ORIG/COPY
SENT TO 7/1/96
CALIFORNIA
BY [Signature]

7863/0672 PAGE 2

SERIAL NUMBER: 08478192
PATENT NUMBER:

FILING DATE: 06/07/1995
ISSUE DATE:

SERIAL NUMBER: 08451270
PATENT NUMBER:

FILING DATE: 05/30/1995
ISSUE DATE:

SERIAL NUMBER: 08326031
PATENT NUMBER:

FILING DATE: 10/19/1994
ISSUE DATE:

SERIAL NUMBER: 08562138
PATENT NUMBER:

FILING DATE: 11/22/1995
ISSUE DATE:

SERIAL NUMBER: 08568543
PATENT NUMBER:

FILING DATE: 12/07/1995
ISSUE DATE:

SERIAL NUMBER: 08568834
PATENT NUMBER:

FILING DATE: 12/07/1995
ISSUE DATE:

SERIAL NUMBER: 07398180
PATENT NUMBER: 5292331

FILING DATE: 08/24/1989
ISSUE DATE: 03/08/1994

JERYL MCDOWELL, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

ECOI

04-03-1996

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

Tab settings ☐ ☐ ☐ ☐

To the Honorable Commissioner of Patents

100166193

and original documents or copy thereof.

1. Name of conveying party(ies):

Applied Vascular Engineering, Inc.

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☐ Assignment

☐ Merger

☐ Security Agreement

☒ Change of Name

☐ Other

Execution Date: January 29, 1996

2. Name and address of receiving party(ies)

Name: Arterial Vascular Engineering, Inc.

Internal Address:

Street Address: 3621 Westwind Boulevard

City: Santa Rosa State: CA ZIP: 95403

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

08/172,420; 08/471,738; 08/465,842;
08/326,023; 08/478,192; 08/451,270;
08/326,031; 08/562,138; 08/568,543;
08/568,834

B. Patent No.(s)

5,292,331

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Nicola A. Pisano

Internal Address: c/o FISH & NEAVE

Street Address: 1251 Avenue of the Americas

City: New York State: NY ZIP: 10020

6. Total number of applications and patents involved:

11

7. Total fee (37 CFR 3.41).....\$ 440.00

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number:

06-1075

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060 JS 03/29/96 08172420

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Nicola A. Pisano

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments, and document:

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Patent and Trademark Office

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1. Name of conveying party(ies):

Applied Vascular Engineering, Inc.

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☐ Assignment

☐ Merger

☐ Security Agreement

☒ Change of Name

☐ Other _____

Execution Date: January 29, 1996

2. Name and address of receiving party(ies)

Name: Arterial Vascular Engineering
Inc

Internal Address: _____

Street Address: 3621 Westwind Boulevard

City: Santa Rosa State: CA ZIP: 9540

Additional name(s) & address(es) attached? ☐ Yes ☒ No

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A. Patent Application No.(s)

08/172,420; 08/471,738; 08/465,842;
08/326,023; 08/478,192; 08/451,270;
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Nicola A. Pisano

Name of Person Signing

Nicola A. Pisano
Signature

3-16-96
Date

Total number of pages including cover sheet, attachments, and document: 6

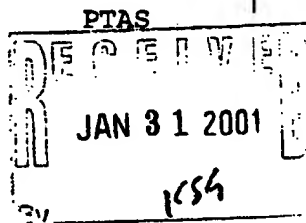
P10671V3C



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

JANUARY 24, 2001

MEDTRONIC AVE INC.
CATHERINE C. MARESH
IP LEGAL
3576 UNOCAL PLACE
SANTA ROSA, CA 95403



UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 11/14/2000

REEL/FRAME: 011258/0053
NUMBER OF PAGES: 6

BRIEF: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
ARTERIAL VASCULAR ENGINEERING,
INC.

DOC DATE: 01/28/1999

ASSIGNEE:
MEDTRONIC AVE, INC.
3576 UNICAL PLACE
SANTA ROSA, CALIFORNIA 94928

SERIAL NUMBER: 09287216
PATENT NUMBER:

FILING DATE: 04/05/1999
ISSUE DATE:

DOCKETED

CPI KSH
RED BOOK _____
2nd Review _____

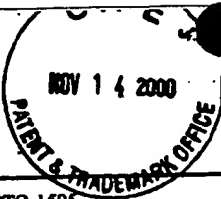
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ASSIGNMENT DIVISION
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ESTIM: CUMULATIVE TO DATE 12/31/2000 (SEE DIVISION)

VERIFICATION DATE: 1/24/2001

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11-14-00



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ocket No. P106 DIV 3 C



FORM PTO-1595
(Rev. 6-93)

101526093

Department of Commerce
and Trademark Office

To the Honorable Asst. Commissioner for Patents. Please record the attached original documents or copy thereof.

1. Name of Conveying Party(ies):
Arterial Vascular Engineering, Inc.

Additional name(s) of conveying parties attached?
☐ Yes ☐ No

3. Nature of conveyance:

Assignment ☐ Merger
☐ Security Agreement ☒ Change of Name
☐ Other:
Execution Date: January 28, 1999

2. Name and address of receiving party (ies):

Name: MEDTRONIC AVE, INC.

Internal Address:

Street Address: 3576 Unocal Place

City: Santa Rosa State: CA ZIP: 94928

Additional names and addresses attached?

☐ Yes ☐ No

4. Application Number(s) or Patent Number(s):
U.S. Application Serial No: 09/287,216

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No(s):

B. Patent No(s):

Additional numbers attached? ☐ Yes ☐ No

5. Names and address of party to whom correspondence concerning document should be mailed:

Name: IP Legal
Medtronic AVE Inc.
3576 Unocal Place
Santa Rosa, CA. 95403
(707) 541-3155

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$40.00
☐ Enclosed ☒ Charge Fees to Deposit Account
☒ Charge any additional fees associated with this paper or during the pendency of this application, or credit any overpayment, to deposit account.

8. Deposit account number: 01-2525

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9. Statement and signature:

To the best of my knowledge and belief, the foregoing is true and correct and any attached copy is a true of copy of the original document.

Catherine C. Maresh
Name of Person Signing

Catherine C. Maresh *November 9, 2000*
Signature Date

Att Reg. No 35,268

Total number of pages including cover sheet, attachments and document 5

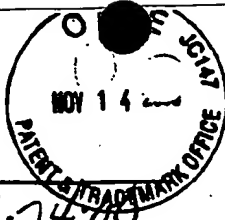
10. Change Correspondence Address to that of Part 5? ☒ Yes ☐ No

OMB No. 0651-0011 (exp. 4/94)

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Washington, D.C. 20231



08-28-2000

Docket No. P106 DIV 3 C

FORM PTO-1595
(Rev. 6-93)

101444379

Department of Commerce
Patent and Trademark Office

To the Honorable Asst. Commissioner for Patents. Please record the attached original documents or copy thereof.

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Arterial Vascular Engineering, Inc.

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3. Nature of conveyance:

☐ Assignment
☐ Security Agreement
☐ Other:
Execution Date:☐ Merger
☒ Change of Name

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Internal Address:

Street Address: 3576 Unocal Place

City: Santa Rosa State: CA ZIP: 94928

Additional names and addresses attached?

☐ Yes ☐ No4. Application Number(s) or Patent Number(s):
U.S. Application Serial No: 09/287,216

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No(s):

B. Patent No(s):

Additional numbers attached? ☐ Yes ☐ No5. Names and address of party to whom correspondence
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Medtronic AVE Inc.
3576 Unocal Place
Santa Rosa, CA. 95403
(707) 541-3155

6. Total number of applications and patents involved: 1

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☒ Charge any additional fees associated with this paper
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any overpayment, to deposit account.

8. Deposit account number: 01-2525

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9. Statement and signature:

*To the best of my knowledge and belief, the foregoing is true and correct and any attached copy is a true of copy of the original document.*Catherine C. Maresh
Name of Person Signing

Signature

Date

Att Reg. No 35,268

Total number of pages including cover sheet, attachments and document 5

10. Change Correspondence Address to that of Part 5? ☒ Yes ☐ No

OMB No. 0651-0011 (exp. 4/94)

Do not detach this portion

Mail documents to be recorded with required cover to:

00000166 012525 09287216

Asst. Commissioner for Patents
Box; Assignments
Washington, D.C. 20231

1/25/2000 DNGUYEN

FC:581

40.00 CH

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"MAV MERGER CORP.", A DELAWARE CORPORATION,

WITH AND INTO "ARTERIAL VASCULAR ENGINEERING, INC." UNDER THE NAME OF "MEDTRONIC AVE, INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-EIGHTH DAY OF JANUARY, A.D. 1999, AT 3 O'CLOCK P.M.



2269660 8100M

991196713



Edward J. Freel, Secretary of State

AUTHENTICATION: 9756414

DATE: 05-20-99

FROM RICHARDS, LAYTON & FINGER #10

(WED) 1. 28' 98 15:03/ST. 15

STATE OF DELAWARE
DIVISION OF CORPORATIONS
FILED 03:00 PM 01/28/1999
991035130 - 2269660



**CERTIFICATE OF MERGER
OF
MAV MERGER CORP.
INTO
ARTERIAL VASCULAR ENGINEERING, INC.**

The undersigned corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware,

DOES HEREBY CERTIFY:

FIRST, That the name and state of incorporation of each of the constituent corporations of the merger is as follows:

<u>Name</u>	<u>State of Incorporation</u>
Arterial Vascular Engineering, Inc.	Delaware
MAV Merger Corp.	Delaware

SECOND: That an Agreement and Plan of Merger between the parties to the merger has been approved, adopted, certified, executed and acknowledged by each of the constituent corporations in accordance with the requirements of subsection (c) of Section 251 of the General Corporation Law of the State of Delaware.

THIRD: That the name of the surviving corporation of the merger is Arterial Vascular Engineering, Inc., which upon the merger will change its name to "Medtronic AVE, Inc."

FOURTH: That the restated certificate of incorporation of the surviving corporation shall, as a result of the merger, be amended and restated in its entirety to read as set forth on Exhibit A hereto.

FIFTH: That the executed Agreement and Plan of Merger is on file at an office of the surviving corporation. The address of such office of the surviving corporation is 3576 Unocal Place, Santa Rosa, California 95403.

SIXTH: That a copy of the Agreement and Plan of Merger will be furnished by the surviving corporation, on request and without cost, to any stockholder of any constituent corporation.

ARTERIAL VASCULAR ENGINEERING, INC.

By:

Lawrence J. Fassler

Vice President of Legal Affairs, General Counsel and
Secretary

**AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
ARTERIAL VASCULAR ENGINEERING, INC.**

ARTICLE 1 - NAME

The name of the corporation shall be Medtronic AVE, Inc.

ARTICLE 2 - REGISTERED OFFICE AND AGENT

The registered office of the corporation in the State of Delaware is 1209 Orange Street, in the City of Wilmington, County of New Castle, Delaware, 19801. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE 3 - PURPOSES

The nature of the business or purposes to be conducted or promoted by the corporation is to engage in any lawful acts and activities for which corporations may be organized under the General Corporation Law of Delaware.

ARTICLE 4 - STOCK

The aggregate number of shares the corporation has authority to issue shall be 2,500 shares of Common Stock, \$.01 par value. Holders of Common Stock shall be entitled to one vote for each share of Common Stock held of record.

ARTICLE 5 - RIGHTS OF STOCKHOLDERS

5.1) No Preemptive Rights. No holder of shares of the corporation of any class now or hereafter authorized has any preferential or preemptive right to subscribe for, purchase or receive any shares of the corporation of any class now or hereafter authorized, or any options or warrants for such shares, which may at any time be issued, sold or offered for sale by the corporation.

5.2) No Cumulative Voting Rights. No holder of shares of the corporation of any class now or hereafter authorized shall be entitled to cumulative voting.

ARTICLE 6 - MEETINGS AND BOOKS

6.1) Meetings of Stockholders and Election of Directors. Meetings of stockholders may be held within or outside the State of Delaware, as the Bylaws may provide. Elections of directors need not be by written ballot unless and except to the extent that the Bylaws so provide.

6.2) Corporate Books. The books of the corporation may be kept within or (subject to any provision contained in the statutes) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the corporation.

ARTICLE 7 - LIMITATION OF DIRECTOR LIABILITY

7.1) Limitation of Liability. A director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit. If the Delaware General Corporation Law is amended after approval by the stockholders of this Article to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

7.2) Amendment of this Article. Any repeal or modification of this Article 7 shall be prospective and shall not affect the rights under this Article 7 in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

ARTICLE 8 - BYLAWS

The Board of Directors is expressly authorized to make and alter Bylaws of this corporation, subject to the power of the stockholders to change or repeal such Bylaws and subject to any other limitations on such authority provided by the General Corporation Law of Delaware.

2700631-8

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